PATENT APPLICATION



IN THE

UNITED STATES PATENT AND TRADEMARK OFFICE

III Ke U.S. Pa	atent Application)
Applicant:	GEE, Robert)
Serial No.:	10/632,454)
Filed:	August 1, 2003)
For:	METHOD AND SYSTEM TO PREVENT FIRING LIVE ROUNDS OF AMMUNITION DURING MILES EXERCISES)))))
Examiner: Art Unit:	Bergin, James S. 3641)

DECLARATION OF ROBERT S. GEE

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ROBERT S. GEE. hereby states under penalty of perjury, to the best of his knowledge, information and belief, as follows:

- 1. I am the Armory Operations Program Manager at the Department of Energy National Training Center located in Albuquerque New Mexico, and have served in that capacity since September 19th, 1988. I am responsible for the overall training, certification and recertification of Department of Energy Sites and Armory staff. I am Co-Chairman of the Department of Energy Armorers Quality Panel, a group responsible for the research, development, test and evaluation of firearms related products and modifications for use in DOE security and training requirements. In addition, I am tasked by the Department of Energy Headquarters office to develop and implement safer MILES training devices specifically designed to preclude the firing of live ammunition in MILES adapted firearms.
- Before that, I worked as a gunsmith for Blythes Sport Shop in Valparaiso Indiana from 1984 through 1988, where my responsibilities included general gunsmithing duties, fabrication of custom built rifles and handguns, customer service and sales. Through my employment and interest in the subject matter of the present invention, I became familiar with the MILES programs and the problems that arise when live ammunition is accidentally loaded into firearms during the MILES exercises or other exercises where blank ammunition is used.
- 2. I have reviewed U.S. Patent No. 5,937,563 to <u>Schuetz</u> ("Schuetz") that was cited by the Patent and Trademark Office in connection with the prosecution of U.S. Patent application Ser. No. 10/632,459, for which I am the sole inventor.

3. <u>Schuetz</u> is intended for use of simulation pistol cartridges that are fired in modified firearms (handguns and long guns) that are generally designed to only accept the simulation cartridge rounds.

These types of simulation cartridges are commercially available through companies like Simunitions Inc. Simunition cartridges, as shown in FIG. 3 of the <u>Schuetz</u> patent are low pressure plastic projectiles seated into a highly modified cartridge case, and the barrels and chambers are modified to accept only these modified cases.

- 4. Neither simulation rounds nor these modified guns are used in Multiple Integrated Laser Engagement System (MILES) exercises. In particular, only military specification blank ammunition is used in MILES exercises. MILES modified rifles use the original barrel and components and a Blank Fire Adaptor is attached to the muzzle of the firearm. Chambers of the rifles will accept live ammunition.
- 5. There is a great difference in the amounts of pressure that the different types of cartridges generate when the different firearms are fired. Cartridges for handguns, for example, include a type of gun powder that is extremely fast burning to facilitate the building of gas pressure in a firearm having a short barrel length. Rifle cartridges, on the other hand, use a slower burning gun powder. Because of the slower burning rate of the gun powder and the additional length of the rifle barrel, pressures are considerably higher upon firing of a rifle cartridge.
- 6. While the use of one hole in the barrel of a handgun may be sufficient to vent the pressure from a handgun cartridge, tests I performed demonstrated that the use of one hole in a rifle will not work to adequately vent the pressure. In particular, results of my testing indicate that the use of only one hole in the barrel of a rifle will do one of two

- things: (1) pressure generated from firing will only bulge the brass case into the opening drilled into the barrel, it will not blow it out as intended or (2) it will not allow enough pressure to be bled off in time to stop the bullet from being discharged. Additionally, the position and number of the vent holes is different for handgun and rifle cartridges.

 Venting the pressure through the body of the case, as taught in the Schuetz patent has not worked in my test of rifle cases.
- 7. Another problem stated in the system taught by <u>Schuetz</u> is that it allows the continuous loading of live cartridges into the chamber. In other words, the user is not made aware of the fact that live cartridges are being used and, therefore, can continue to fire live rounds. Extraction and ejection of the fired cartridge works as in a normal live firing gun. Accordingly, there is an increased risk, especially with the use of only one hole in the chamber, that the pressure will not be sufficiently bled off and a bullet will discharge.
- 8. In the preferred embodiment of my invention, as set forth in the present patent application, at least part of the cartridge case will burr into the respective aperture or holes in the barrel which prevent the cartridge from being removed by normal extraction or ejection function. Accordingly, the user, when he or she attempts to load an additional cartridge, will be alerted to the problem and will have to visually and physically inspect the chamber and remove the spent case. By inspecting the firearm in this manner, the user will be able to determine that a live round was used and be able to check the remaining rounds.

statements made on information and belief are believed to be true; and further that these statements were made under the penalty of perjury.

Dated: 11-01-2004

Robert S. Gee

State of New Mexico Count of Bernalillo

Subscribed and sworn before me on <u>Naveulau</u>, 2004, by Robert S bee

Notary Seal

Commission Exp. 5/14/06

Notary Public